

Claims

What is claimed is:

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A3 } 1. A method of tuning sockets of a computing environment, said method comprising:

dynamically determining information relating to a current configuration of the computing environment; and

setting one or more parameters of a socket of said computing environment based on the dynamically determined information.

2. The method of claim 1, wherein said dynamically determining is performed in response to opening the socket.

3. The method of claim 1, wherein said one or more parameters comprise a size of a send buffer of the socket.

4. The method of claim 1, wherein said one or more parameters comprise a size of a receive buffer of the socket.

5. The method of claim 1, wherein said dynamically determining comprises determining a maximum amount of data that can be sent by said socket based on the current configuration.

6. The method of claim 1, wherein said information comprises information relating to a network of the computing environment coupled to the socket.

7. The method of claim 6, wherein said information relating to the network comprises at least one of a network adapter maximum segment size and an adapter transmit limit.

8. The method of claim 1, wherein said information comprises information relating to the socket.

9. The method of claim 8, wherein said information comprises at least one of a current socket send buffer size, a current socket receive buffer size and a current socket maximum buffer limit.

10. The method of claim 1, wherein said information comprises a number of remote sockets to be opened.

11. The method of claim 1, wherein said computing environment includes an indeterminate number of sockets.

12. The method of claim 1, wherein said computing environment includes a plurality of networks.

13. The method of claim 1, wherein said setting is performed by a node of the computing environment initiating a socket connection with another node of the computing environment, and wherein the socket is local to the initiating node.

14. The method of claim 13, wherein said setting comprises setting a size of a send buffer of the socket based on at least one of a desired amount of data streaming through the send buffer, an amount of data that can be transmitted, and a maximum buffer limit of the socket.

Q3 15. The method of claim 13, wherein said setting comprises setting a size of a receive buffer of the socket, such that the size does not exceed a maximum buffer limit of the socket.

16. The method of claim 1, wherein said setting is performed by a node of the computing environment being connected to by another node initiating a socket connection with the node, and wherein the socket is local to the node.

17. The method of claim 16, wherein said setting comprises setting a size of a send buffer of the socket based on a number of remote sockets to be opened.

18. The method of claim 16, wherein said setting comprises setting a size of a send buffer of the socket based on a maximum buffer limit of the socket.

19. The method of claim 16, wherein said setting comprises setting a size of a receive buffer of the socket based on an amount of data that can be received.

20. A method of tuning sockets of a computing environment, said method comprising:

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determining, in response to opening a socket of the computing environment, information relating to a current configuration of the computing environment, said information including at least one of information relating to a network of the computing environment coupled to the socket and information relating to the socket; and

setting one or more parameters of the socket based on the determined information, wherein the one or more parameters reflect the current configuration of the computing environment.

21. A system of tuning sockets of a computing environment, said system comprising:

means for dynamically determining information relating to a current configuration of the computing environment; and

means for setting one or more parameters of a socket of said computing environment based on the dynamically determined information.

22. The system of claim 21, wherein the dynamically determining is performed in response to opening the socket.

23. The system of claim 21, wherein said one or more parameters comprise a size of a send buffer of the socket.

24. The system of claim 21, wherein said one or more parameters comprise a size of a receive buffer of the socket.

25. The system of claim 21, wherein said means for dynamically determining comprises means for determining a maximum amount of data that can be sent by said socket based on the current configuration.

26. The system of claim 21, wherein said information comprises information relating to a network of the computing environment coupled to the socket.

27. The system of claim 26, wherein said information relating to the network comprises at least one of a network adapter maximum segment size and an adapter transmit limit.

28. The system of claim 21, wherein said information comprises information relating to the socket.

29. The system of claim 28, wherein said information comprises at least one of a current socket send buffer size, a current socket receive buffer size and a current socket maximum buffer limit.

30. The system of claim 21, wherein said information comprises a number of remote sockets to be opened.

31. The system of claim 21, wherein said computing environment includes an indeterminate number of sockets.

32. The system of claim 21, wherein said computing environment includes a plurality of networks.

33. The system of claim 21, wherein said means for setting comprises performing the setting by a node of the computing environment initiating a socket connection with another node of the computing environment, and wherein the socket is local to the initiating node.

34. The system of claim 33, wherein said means for setting comprises means for setting a size of a send buffer of the socket based on at least one of a desired amount of data streaming through the send buffer, an amount of data that can be transmitted, and a maximum buffer limit of the socket.

35. The system of claim 33, wherein said means for setting comprises means for setting a size of a receive buffer of the socket, such that the size does not exceed a maximum buffer limit of the socket.

36. The system of claim 21, wherein said means for setting comprises performing the setting by a node of the computing environment being connected to by another node initiating a socket connection with the node, and wherein the socket is local to the node.

37. The system of claim 36, wherein said means for setting comprises means for setting a size of a send buffer of the socket based on a number of remote sockets to be opened.

38. The system of claim 36, wherein said means for setting comprises means for setting a size of a send buffer of the socket based on a maximum buffer limit of the socket.

43 39. The system of claim 36, wherein said means for setting comprises means for setting a size of a receive buffer of the socket based on an amount of data that can be received.

40. A system of tuning sockets of a computing environment, said system comprising:

Q3 means for determining, in response to opening a socket of the computing environment, information relating to a current configuration of the computing environment, said information including at least one of information relating to a network of the computing environment coupled to the socket and information relating to the socket; and

means for setting one or more parameters of the socket based on the determined information, wherein the one or more parameters reflect the current configuration of the computing environment.

41. A system of tuning sockets of a computing environment, said system comprising:

at least one node to dynamically determine information relating to a current configuration of the computing environment; and

one or more nodes of the at least one node to set one or more parameters of a socket of said computing environment based on the dynamically determined information.

42. A system of tuning sockets of a computing environment, said system comprising:

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at least one node to determine, in response to opening a socket of the computing environment, information relating to a current configuration of the computing environment, said information including at least one of information relating to a network of the computing environment coupled to the socket and information relating to the socket; and

one or more nodes of the at least one node to set one or more parameters of the socket based on the determined information, wherein the one or more parameters reflect the current configuration of the computing environment.

43. At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of tuning sockets of a computing environment, said method comprising:

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dynamically determining information relating to a current configuration of the computing environment; and

setting one or more parameters of a socket of said computing environment based on the dynamically determined information.

44. The at least one program storage device of claim 43, wherein said dynamically determining is performed in response to opening the socket.

45. The at least one program storage device of claim 43, wherein said one or more parameters comprise a size of a send buffer of the socket.

46. The at least one program storage device of claim 43, wherein said one or more parameters comprise a size of a receive buffer of the socket.

47. The at least one program storage device of claim 43, wherein said dynamically determining comprises determining a maximum amount of data that can be sent by said socket based on the current configuration.

48. The at least one program storage device of claim 43, wherein said information comprises information relating to a network of the computing environment coupled to the socket.

49. The at least one program storage device of claim 48, wherein said information relating to the network comprises at least one of a network adapter maximum segment size and an adapter transmit limit.

50. The at least one program storage device of claim 43, wherein said information comprises information relating to the socket.

51. The at least one program storage device of claim 50, wherein said information comprises at least one of a current socket send buffer size, a current socket receive buffer size and a current socket maximum buffer limit.

52. The at least one program storage device of claim 43, wherein said information comprises a number of remote sockets to be opened.

53. The at least one program storage device of claim 43, wherein said computing environment includes an indeterminate number of sockets.

54. The at least one program storage device of claim 43, wherein said computing environment includes a plurality of networks.

55. The at least one program storage device of claim 43, wherein said setting is performed by a node of the computing environment initiating a socket connection with another node of the computing environment, and wherein the socket is local to the initiating node.

56. The at least one program storage device of claim 55, wherein said setting comprises setting a size of a send buffer of the socket based on at least one of a desired amount of data streaming through the send buffer, an amount of data that can be transmitted, and a maximum buffer limit of the socket.

57. The at least one program storage device of claim 55, wherein said setting comprises setting a size of a receive buffer of the socket, such that the size does not exceed a maximum buffer limit of the socket.

58. The at least one program storage device of claim 43, wherein said setting is performed by a node of the computing environment being connected to by another node initiating a socket connection with the node, and wherein the socket is local to the node.

59. The at least one program storage device of claim 58, wherein said setting comprises setting a size of a send buffer of the socket based on a number of remote sockets to be opened.

60. The at least one program storage device of claim 58, wherein said setting comprises setting a size of a send buffer of the socket based on a maximum buffer limit of the socket.

61. The at least one program storage device of claim 58, wherein said setting comprises setting a size of a receive buffer of the socket based on an amount of data that can be received.

62. At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of tuning sockets of a computing environment, said method comprising:

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determining, in response to opening a socket of the computing environment, information relating to a current configuration of the computing environment, said information including at least one of information relating to a network of the computing environment coupled to the socket and information relating to the socket; and

setting one or more parameters of the socket based on the determined information, wherein the one or more parameters reflect the current configuration of the computing environment.

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